

APPLICATION NO. 10/076,946
DOCKET NO. P2005-1/N8208**COMPLETE LISTING OF CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-7 (canceled)

Claim 8 (currently amended) An apparatus for inspection of a cylindrical carbon article having a length and a longitudinal axis parallel to the length, comprising:

an inspection station for receiving the article in a fixed longitudinal location and rotating the article about the longitudinal axis of the article while the article is in the fixed longitudinal location;

an encoder arranged to axially engage an end of the article for sensing a circumferential position of the article, the encoder being adjustable in elevation relative to the inspection station to accommodate different diameters of articles;

a master robot, including a first pair of transducers arranged to engage the article at circumferentially spaced positions about the article; and

a slave robot constructed to move in synchronization with the master robot, including a second pair of transducers arranged to engage the article at a location longitudinally spaced from the first pair of transducers, so that the first and second pairs of transducers may simultaneously scan first and second portions, respectively, of the length of the article.

Claim 9 (original) The apparatus of claim 8, wherein:

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the transducers are ultrasonic transducers for measuring sound velocities through the article.

Claim 10 (original) The apparatus of claim 8, wherein:

each of the robots includes a bi-furcated yoke having two arms with one of the transducers mounted on each arm.

Claim 11 (original) The apparatus of claim 8, wherein:

the inspection station includes powered rotational rollers for rotating the article about the longitudinal axis of the article.

Claim 12 (original) The apparatus of claim 11, wherein:

the powered rotational rollers include first and second longitudinally spaced pairs powered rotational rollers, at least one of the pairs of powered rotational rollers being longitudinally movable to accommodate different lengths of articles.

Claim 13 (original) The apparatus of claim 8, wherein:

the inspection station further includes an elevator for placing the article on the powered rotational rollers and for raising the article from the powered rotational rollers.

Claim 14 (original) The apparatus of claim 8, further comprising:

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a conveyor system having an article path in line with the longitudinal axis of the article at the inspection station.

Claims 15-20 (canceled)

Claim 21 (previously presented) An apparatus for inspection of a cylindrical carbon article having a length and a longitudinal axis parallel to the length, comprising:

an inspection station for receiving the article in a fixed longitudinal location and rotating the article about the longitudinal axis of the article while the article is in the fixed longitudinal location;

an encoder arranged to axially engage an end of the article for sensing a circumferential position of the article, the encoder being adjustable in elevation relative to the inspection station to accommodate different diameters of articles;

a master robot, including a first pair of transducers arranged to engage the article at circumferentially spaced positions about the article; and

a slave robot constructed to move in synchronization with the master robot, including a second pair of transducers arranged to engage the article at a location longitudinally spaced from the first pair of transducers, so that the first and second pairs of transducers may simultaneously scan first and second portions, respectively, of the length of the article.

Claim 22 (previously presented) The apparatus of claim 21, wherein:

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the transducers are ultrasonic transducers for measuring sound velocities through the article.

Claim 23 (previously presented) The apparatus of claim 21, wherein:

each of the robots includes a bi-furcated yoke having two arms with one of the transducers mounted on each arm.

Claim 24 (previously presented) The apparatus of claim 21, wherein:

the inspection station includes powered rotational rollers for rotating the article about the longitudinal axis of the article.

Claim 25 (previously presented) The apparatus of claim 24, wherein:

the powered rotational rollers include first and second longitudinally spaced pairs powered rotational rollers, at least one of the pairs of powered rotational rollers being longitudinally movable to accommodate different lengths of articles.

Claim 26 (previously presented) The apparatus of claim 21, wherein:

the inspection station further includes an elevator for placing the article on the powered rotational rollers and for raising the article from the powered rotational rollers.

Claim 27 (previously presented) The apparatus of claim 21, further comprising:

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a conveyor system having an article path in line with the longitudinal axis of
the article at the inspection station.